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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,978	09/30/2003	Leonel Saenz III	AUS920030795US1	4950
35525	7590	08/21/2006	EXAMINER DUONG, OANH L	
IBM CORP (YA) C/O YEE & ASSOCIATES PC P.O. BOX 802333 DALLAS, TX 75380			ART UNIT 2155	PAPER NUMBER

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/674,978

Applicant(s)

SAENZ, LEONEL

Examiner

Oanh Duong

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-21 are presented for examination.

#### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 15 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim is not limited to tangible embodiments. The claim recited "A computer program product on a computer readable medium... comprising" is nonstatutory. Since in view of Applicant's disclosure at page 15 lines 1-10, the computer readable medium also includes "transmission-type media such as digital and analog communication links, wired or wireless communications links using transmission forms, such as, for example, radio frequency and light wave transmissions". As such, the claim is not limited to statutory subject matter and is therefore nonstatutory.

To overcome this type of 101 rejection, examiner suggests applicants to amend the claim to include computer readable storage medium to store computer instructions (for example, the claim should be amended as "A computer program product comprising computer instructions embodied in a computer readable storage medium... comprising:" see MPEP 2106 section V. DETERMINE WHETHER THE CLAIMED INVENTION COMPLIES WITH 35 U.S.C. 101 under subsection 1. Nonstatutory subject matter.

***Claim Objections***

4. Claims 11-15 are objected to because of the following informalities:

The feature "the method" in claims 11-14 should be "the server".

Claim 15 should includes instructions for "transmitting information to a group of active clients in response to requests received at a website".

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3, 4-6, 8, 10-13, 15, 17-20, and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nielsen**, U.S. Patent No. **6,968,379 B2**, in view of **Weerakoon et al.** (hereafter, **Weerakoon**), US 2003/0125034 A1.

Regarding claim 1, **Nielsen** teaches a method of transmitting information on a network (Fig. 2A and Fig. 3), comprising:

sending information to a plurality of clients across said network ("transmitting an HTML document and a JPG file to one client and a GIF file to another client", col. 6 lines

Art Unit: 2155

34-36), wherein each active client is allocated a corresponding initial amount of bandwidth (amount of bandwidth 320, 330, 340 and 350, Fig. 3) for transfer of information (i.e., the server 300 has a predetermined amount of bandwidth N 310 which is must divide 320, 330, 340, and 350 between multiple clients 360, 370, 380, and 390, Fig. 3 col. 4 lines 48-55).

when a first active client is operating with a respective allocation and a portion of said first client's respective allocation is not used in a given time period ("when the client is not utilizing all of the allocated bandwidth", col. 5 lines 31-49), reducing said first client's respective allocation by the amount of said portion and redistributing said portion of bandwidth among members of a first set of active clients ("the unused bandwidth is allocated to all other existing connections which might be able to use it", col. 1 lines 50-54), each member of said first set of active clients having used all of a respective allocation of bandwidth (Fig. 7B: a client having an associated GIF file transmitted to will have an additional bandwidth added because all of allocation bandwidth associated with that client has been used, for example, unused bandwidth percent is 0%);

wherein said method seeks to utilize all portions of available bandwidth (Fig. 7B col.6 lines 32-58).

Nielsen does not explicitly teach each active client is allocated a corresponding initial amount of bandwidth such that a first portion of bandwidth equal to  $x$  is allocated to active clients having a first priority and a second portion of bandwidth equal to  $y$  is allocated to active clients having a second priority that is lower than said first priority said first priority, wherein  $x$  is greater than  $y$ .

Weerakoon teaches each active client is allocated a corresponding initial amount of bandwidth such that a first portion of bandwidth equal to  $x$  is allocated to active clients having a first priority and a second portion of bandwidth equal to  $y$  is allocated to active clients having a second priority that is lower than said first priority said first priority, wherein  $x$  is greater than  $y$  (Fig. 1, page 1 paragraphs [0003]-[0006], and [0013]).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the teachings of Nielsen to allocate bandwidth to each active client based on client priority as taught by Weerakoon. One would be motivated to do so to provide more efficient resource allocation method to increase the network capacity (Weerakoon, page 1 paragraph [0002]).

Regarding claim 3, **Nielsen-Weerakoon** teaches the method of claim 1, wherein an initial amount of bandwidth allocated to each active client is recalculated each time a client changes status from active to inactive or inactive to active or a client's priority changes (Nielsen, "the Change priority event is triggered which then updates the AUT table and begins the bandwidth re-allocation process", col. 7 lines 46-49).

Regarding claims 4, 11, and 18, Nielsen-Weerakoon teaches the method of claim 1, further comprises taking a small amount of bandwidth away from a second set of clients that are operating with a respective amount of bandwidth greater than a respective initial allocation and redistributing said small amount of bandwidth to one of

Art Unit: 2155

third set of clients that are both operating with a respective allocation of bandwidth less than a respective initial allocation and are using all of said respective allocation (Weerakoon, page 1 paragraph [0004]).

Regarding claim 5, **Nielsen** teaches the method of claim 1, wherein said network is the Internet (Internet 230, Fig. 2B col. 4 lines 42-47).

Regarding claim 6, Nielsen-Weerakoon teaches the method of claim 1, wherein respective initial amounts of bandwidth are allocated to each client as percentage of total bandwidth calculated according to a respective priority and the number of active clients (Nielsen, Fig 3 col. 4 lines 48-55).

Regarding claim 8, **Nielsen** teaches a server (server 220, Fig. 2A) for transmitting information on a network (network 200, Fig. 2A), said server comprising:

an input device (communication port 185, Fig. 1B) for receiving requests on said network from a plurality of active clients (command(s) is/are received by server, col. 5 lines 11-23);

an output device (communication port 185, Fig. 1B) for providing information through said network to said plurality of active clients ("transmitting an HTML document and a JPG file to one client and a GIF file to another client", col. 6 lines 32-58);

a processor connected to said input device and to said output device to process requests and provide information (CPU 155 connected to communication ports 185 via bus 150 for processing request and providing information, Fig. 1B); and

an allocation program (bandwidth allocator) executed by said processor, said allocation program being connected to provide allocations of bandwidth for sending information successively to ones of said plurality of active clients (bandwidth allocation from network server to several clients, col. 4 lines 48-55), said allocation program comprising:

first instructions for allocating a first portion of bandwidth to one of said active client (25% of server's predetermined amount of bandwidth N 310 is allocated to client 1, Fig. 3 col. 4 lines 48-55 and col. 7 lines 47-63) and for allocating a second portion of bandwidth to one of said active clients (50% of server's predetermined amount of bandwidth N 310 is allocated to client 2, Fig. 3 col. 4 lines 48-55 and col. 7 lines 47-63); and

second instructions for determining a first amount of bandwidth of a first client's allocation that has not been used ("when the client is not utilizing all of the allocated bandwidth", col. 5 lines 31-49), reducing said first client's allocation by said first amount, and redistributing said first amount of bandwidth to other connection(s) (associated with active client(s)) ("the unused bandwidth is allocated to all other existing connections which might be able to use it", col. 1 lines 50-54), each member of said first set of active clients having used all of a respective allocation of bandwidth (Fig. 7B: a client having an associated GIF file transmitted to will have an additional bandwidth added



because all of allocation bandwidth associated with that client has been used, for example, unused bandwidth percent is 0%).

Nielsen does not explicitly teach allocating a first portion of bandwidth equal to  $x$  to ones of said active clients having a first priority and allocating a second portion of bandwidth equal to  $y$  to ones of said active clients having second priority that is lower than said first priority, wherein  $x$  is greater than  $y$ .

Weerakoon teaches allocating a first portion of bandwidth equal to  $x$  to ones of said active clients having a first priority and allocating a second portion of bandwidth equal to  $y$  to ones of said active clients having second priority that is lower than said first priority, wherein  $x$  is greater than  $y$  (i.e., "allocating each user a predefined priority ranking and each predefined priority level has a pre-emptive section of the bandwidth", Fig. 1 page 1 paragraphs [0004] and [0013]).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the teachings of Nielsen to allocate bandwidth to each active client based on client priority as taught by Weerakoon. One would be motivated to do so to provide more efficient resource allocation method to increase the network capacity (Weerakoon, page1 paragraph [0002]).

Regarding claim 10, **Nielsen** teaches the server of claim 8, wherein said first instruction are performed each time one of the following events occurs: a new client requires an allocation, an existing client no longer requires an allocation, or a user's priority is changed (col. 7 lines 46-49).

Regarding claim 12, **Nielsen** teaches the method of claim 8, where said network is the Internet (Internet 230, Fig. 2B col. 4 lines 42-47).

Regarding claim 13, **Nielsen** teaches the method of claim 8, wherein respective initial amounts of bandwidth are allocated to each client as a percentage of total bandwidth calculated according to a respective priority and the number of active clients (Fig 3 col. 4 lines 48-55 and col. 6 lines 31-58).

Regarding claim 15, this claim comprises a computer program product and is substantially the same as claim 8, discussed above, same rationale of rejection is applicable.

Regarding claim 17, **Nielsen** teaches the computer program product of claim 15, wherein said first instruction are performed each time one of the following events occurs: a new client requires an allocation, an existing client no longer requires an allocation, or a user's priority is changed (col. 7 lines 46-49).

Regarding claim 19, **Nielsen** teaches the computer program product of claim 15, where said network is the Internet (Internet 230, Fig. 2B col. 4 lines 42-47).

Regarding claim 20, this claim does not teach or define any new limitation above claim 6, same rationale of rejection is applicable.

7. Claims 2, 7, 9, 14, 16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nielsen**, U.S. Patent No. **6,968,379** B2, in view of Weerakoon et al. (hereafter, Weerakoon), US 2003/0125034 A1, and further in view of Wang, US 6,385,169 B1.

Regarding claim 2, **Nielsen** teaches the method of claim 1

Nielsen-Weerakoon does not explicitly teach said portion of bandwidth will be redistributed among members of said first set such that each member having said first priority receives a first amount and each member having said second priority receives a second amount, wherein proportion of said first amount to said second amount is the same as the proportion of x to y.

Wang teaches portion of bandwidth will be redistributed among members such that each member having said first priority receives a first amount and each member having said second priority receives a second amount, wherein proportion of said first amount to said second amount is the same as the proportion of x to y (col. 5 lines 1-12).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the teachings of Nielsen-Weerakoon redistribute portion of bandwidth among members such that each member having said first priority receives a first amount and each member having said second priority receives a second amount,

wherein proportion of said first amount to said second amount is the same as the proportion of  $x$  to  $y$  as taught by Wang. One would be motivated to do so to better satisfy the needs of both the users and the service provider (Wang, col. 2 line 59-60).

Regarding claim 7, Nielsen-Weerakoon teaches  $x$  is a multiple of  $y$  (Wang, col. 4 lines 56-67).

Regarding claim 9, this claim comprises a server corresponding to the method claim 2, same rationale of rejection is applicable.

Regarding claim 14, Nielsen-Weerakoon teaches the method of claim 13  $x$  is a multiple of  $y$  (Wang, col. 4 lines 56-67).

Regarding claim 16, this claim comprises a computer program product corresponding to the method claim 2, same rationale of rejection is applicable.

Regarding claim 21, this claim does not teach or define any new limitation above claim 7, same rationale of rejection is applicable.

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Oanh Duong whose telephone number is (571) 272-3983. The examiner can normally be reached on Monday- Friday, 9:30PM - 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2155

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

O.D

August 10, 2006



SALEH NAJJAR  
SUPERVISORY PATENT EXAMINER